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Interim Guidelines for
- **Schools**
- **Day care**

Workplace Prevention and Management of
Acquired Immunodeficiency Syndrome (AIDS)
and Human Immunodeficiency Virus Infections (HIV)

Manitoba
Health

WORKPLACE PREVENTION AND MANAGEMENT OF

ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

AND

HUMAN IMMUNODEFICIENCY VIRUS INFECTIONS (HIV)

INTERIM

GUIDELINES FOR

SCHOOLS

DAY-CARE

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PREFACE

The purpose of this series of infection control guidelines is to provide information on measures which should be taken to prevent the transmission of AIDS virus (HIV) infection in the community, in institutions and in other workplaces.

AIDS virus (HIV) infection is transmitted by the exchange of blood and/or body fluids; it is basically a sexually transmitted infection and modification of sexual practices is the single most important method of preventing infection.

In the workplace, handwashing and caution in the use and disposal of needles are the most important infection control procedures.

Most persons with AIDS virus (HIV) infection are asymptomatic and many are not aware that they are infected. For this reason, appropriate precautions must be taken for all persons at risk of being infected. In most situations the following guidelines are applicable to all persons - whether they are identified as being infected or not.

The titles available under the series of Workplace Prevention and Management of Acquired Immunodeficiency Syndrome (AIDS) and Human Immunodeficiency Virus Infections (HIV) are:

Guidelines for hospitals, laboratories, and pathologists
Guidelines for funeral directors
Guidelines for home care providers, and long term facilities
Guidelines for providers of prehospital emergency care and resuscitation training
Guidelines for dentistry
Guidelines for correctional and detentional facilities
Guidelines for schools and daycare centres
Guidelines for personal service workers.

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As the bibliography indicates, Canada Diseases Weekly Report (CDWR) and Morbidity Mortality Weekly Report (MMWR) recommendations are the basis for many of these guidelines.

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INTRODUCTION TO AIDS AND AIDS VIRUS (HIV) INFECTION

DEFINITION

Acquired Immunodeficiency Syndrome (AIDS) is a breakdown of the body's immune system - its natural defense against disease. Without this protection, a person is vulnerable to illnesses which a healthy immune system can prevent.

A person with AIDS fights an ongoing battle against many illnesses. Rare forms of pneumonia, skin cancer or brain infection may occur and are eventually fatal.

CAUSE

AIDS is caused by a virus - commonly called the Human Immunodeficiency Virus (HIV) - which attacks the body's immune system. Infection with this virus does not always lead to AIDS. Infected persons may have a mild illness or none at all. As yet, it is not known why some people become ill and others do not. The amount of virus, as well as infection by other viruses, may influence the development of AIDS.

SYMPTOMS

At present, the vast majority of persons with an AIDS virus (HIV) infection (approximately 70%) may feel completely well and have no symptoms. Some infected persons (approximately 25%) have some of the following symptoms: swelling of glands in the neck, armpits and groin, a thick white coating on the tongue, unexplained weight loss, persistent diarrhea, a harsh dry cough, tiredness, fever, or night sweats. These symptoms may be referred to as AIDS-related conditions (ARC). Only about five percent of persons presently infected with the AIDS virus (HIV) have the actual syndrome known as AIDS.

TRANSMISSION (Spread)

How the Virus is Spread

. The AIDS virus (HIV) has been shown to be spread from an infected person to an uninfected person in the following ways:
  - through sexual contact (penis/vagina, penis/rectum, mouth/rectum, mouth/genital)
  - through sharing needles used in injecting drugs,
  - through transfusion or injection of infectious blood or blood products; to help prevent this type of spread, all blood donations in Canada are now screened for evidence of AIDS virus (HIV) infection,
  - from an infected woman to her fetus or newly born baby.

. An individual can be infected with the virus that causes AIDS without having symptoms of AIDS or appearing ill. Infected individuals without symptoms can transmit the infection to others. Once infected, a person is presumed infected for life, but actual symptoms may not develop for many years.

. A single exposure to the AIDS virus (HIV) may result in infection.

How the Virus is NOT Spread

. There is no evidence that the virus is spread through casual social contact such as shaking hands, social kissing, coughing, sneezing, sharing swimming pools, bed linens, eating utensils, office equipment, or being next to or served by an infected person. There is no reason to avoid this type of contact with an infected person.

. It is not spread by the process of giving blood; new transfusion equipment is used for each donor.

. It is not spread by sexual intercourse between uninfected individuals who have maintained an exclusive sexual relationship.

RISK ACTIVITIES

1. Sexual activity with a number of different partners, particularly if they are anonymous.
2. Anal intercourse
3. Intravenous drug abuse.

GROUPS AT RISK

1. Homosexual and bisexual men
2. Intravenous drug abusers
3. Recipients of multiple blood or blood product transfusions prior to 1986
4. Children born to mothers infected with the AIDS virus (HIV)
5. Persons with multiple sex partners.
6. People who are sexually active with individuals who are or may be infected.

AIDS AND AIDS VIRUS (HIV) TESTING

At the present time, blood can routinely be tested only for signs of the virus. These signs are special blood components called antibodies which form in response to the virus. The blood test is available only at the request of a physician and should only be done after appropriate counselling has taken place.

Positive Antibody Test

If antibodies to the AIDS virus (HIV) are found in the blood, it means the person has been infected with this virus at some time. A positive test result does NOT mean that a person has AIDS or will get AIDS at some time in the future. It does **NOT** mean the person is immune to (protected from) the virus. It **DOES** indicate that the person has been exposed to the virus, is assumed to carry the virus and could spread it to others.

Negative Antibody Test

A negative test usually means that the person has not been infected with the AIDS virus (HIV).

TREATMENT

At this time there is no treatment which can repair the breakdown of the body's immune system. Treatments are available for many of the illnesses which develop because of the weakened immune system. However, AIDS is always fatal. Most patients die within three years of diagnosis.

PREVENTION

No vaccine is currently available. The only strategy to combat the spread of infection is to prevent the transmission of the virus from one person to another.

PUBLIC EDUCATION

GENERAL PUBLIC

Education of the general public is an essential component of the program to control AIDS and AIDS virus (HIV) infections. Knowledge of how the disease is spread and how to avoid infection should reduce much of the concern which exists in the community. At the same time, accurate information should motivate all individuals to realistically reduce their own risk of acquiring or transmitting this infection.

People infected with the virus may seem completely healthy and may not even know they have it. Although most persons in North America who are known to be infected are in groups at risk, anyone who is exposed can become infected. Therefore, it is prudent for everyone to take precautions to protect themselves from becoming infected. The following information and advice is appropriate for the general public:

- Infection through sexual contact can be avoided by abstaining from sexual activity. Sexually active persons can avoid the AIDS virus (HIV) infection by establishing a mutually exclusive relationship with an uninfected partner.

- Individuals who are sexually active should not have sex with many different people. The more partners one has, the greater the chances of having sex with an infected person.

- The use of condoms is strongly encouraged if there is any possibility that a sex partner has been exposed to or is infected with AIDS virus (HIV). A history of intravenous drug-use or of many sex partners increases the chance that a person may have been infected.

- Sharing needles and syringes should be avoided.

- Anal intercourse should be avoided. It is important to use a condom if one does have anal intercourse.

SCHOOLS

School boards and public health offices are encouraged to develop education programs to inform children, parents, and teachers about AIDS and AIDS virus (HIV) infections. Education about risk factors and risk reduction methods should be factual and non-judgmental.

SCHOOL AND COLLEGE AGED POPULATIONS

Education to these students should emphasize:

- One can virtually eliminate the risk of AIDS and AIDS virus (HIV) infections by saying no to sex and drugs.

- One can reduce the risk of AIDS by practicing responsible sexual behavior with a mutually exclusive partner and avoiding risk activities.

GROUPS AT RISK AND RISK ACTIVITIES

Persons in risk groups and persons who engage in risk activities should be informed about AIDS and AIDS virus (HIV) infections so they can take precautions to minimize their chances of acquiring or transmitting the infection.

The following advice is particularly appropriate for persons who are in known risk groups or who engage in risk activities:

- Use condoms during sexual activity. The proper use of condoms may prevent infection with the virus carried in semen and vaginal fluid.

- Do not have anal intercourse. It can cause sores or cuts in the rectum and the virus may get into the bloodstream through these breaks. If you do have anal intercourse, use a condom.

- Do not have oral sex if you have open sores or cuts in the mouth.

- Do not allow semen, blood, urine or feces to enter the body of a sexual partner.

- Infected women should use a reliable method of contraception to avoid pregnancy.

- Never share needles and syringes with anyone.

- Do not donate blood, organs or sperm.

THE WORKPLACE

It is essential that all individuals be knowledgeable about basic infection control practices and be encouraged to follow them. An educational effort directed to staff in all workplaces is an important aspect of preventing transmission of infections and reducing anxiety and misunderstanding about the infection. Although educational initiatives need to address communicable diseases in general, specific emphasis should be directed at AIDS and AIDS virus (HIV) infections. The goal of this education is to combat fear that is based on misinformation or lack of information and to minimize the risk of transmission of AIDS virus (HIV) by promoting good health practices. These include routine use of infection control precautions and eliminating risk behaviors. Staff also need to be provided with information regarding the signs and symptoms of AIDS virus (HIV) infections, the methods of transmission of the virus and preventive measures. This information should be presented in terms that are easily understood and should include literature in foreign languages if required.

GUIDELINES FOR SCHOOLS

The most common issues of concern are whether a child with the AIDS virus (HIV) infection can transmit the infection to classmates or to staff and under what circumstances transmission might occur. Local medical officers of health may wish to review the following guidelines with teachers in their community as part of a professional development program.

I AIDS VIRUS (HIV) RISK ASSESSMENT

• Risk to children

Among adults, the transmission of AIDS virus (HIV) is primarily through sexual activity or transfusion of contaminated blood or blood products. Although the AIDS virus has been isolated from semen, blood, saliva, tears and breast milk of infected people, transmission by saliva and tears has not been documented in any case studies.

Infected children may have acquired the AIDS virus (HIV) from their mothers before or during childbirth. Infection in children may also result from transfusion of contaminated blood or blood products. For example, prior to 1986, a child with hemophilia may have acquired the virus from contaminated blood products needed to promote clotting. The virus has also been found in breast milk of infected women, and this source has been implicated in at least one case of AIDS.

• Risk to classmates and school staff

There is no risk of transmission of the virus among children and staff through the typical day-to-day social contact of a school. For example, the virus will not spread among those sharing a desk or chair or using the same drinking fountain or toilet facility. Theoretically, a risk of transmission exists when open sores or broken mucous membranes come into contact with blood or other body fluids of an infected person. Such circumstances are more likely to occur in infant day-care centres, where diapers are changed, and children may put toys in their mouths or bite each other, and also in

institutions for the mentally handicapped, where children may lack control of their body secretions or may exhibit aggressive behavior such as biting or striking.

- **Risk posed by the school environment to a child with immune deficiency due to AIDS virus (HIV) infection**

AIDS virus (HIV) infection may weaken or destroy the body's immune system, thereby increasing the child's susceptibility to a number of infectious diseases. The chances that a child with AIDS virus (HIV) infection will be exposed to other infections are greater in a school than in the child's home. The child's physician can best determine the degree of injury to the immune system and assess the child's risk of acquiring such diseases as chickenpox, measles, herpes simplex and cytomegalovirus infection.

II CONFIDENTIALITY

Because of the public concern associated with AIDS, confidentiality and the child's right to privacy should be of utmost importance to prevent ostracism by classmates or teachers. Parents and teachers should be sensitive to the child's psychosocial and physical needs.

III RECOMMENDATIONS

- All educational institutions and public health departments are strongly encouraged to inform parents, children, and educators about AIDS and its transmission, regardless of whether AIDS virus (HIV) infected children are involved. Such educational programs would greatly assist efforts to provide the best care and education for infected children while minimizing the risk of transmission to other people.

- In any setting, good handwashing after exposure to blood and other body fluids and before caring for another child should be practised. Gloves should be worn if open lesions are present on the caregiver's hands. In addition, open lesions on a child should be covered.

- All schools should adopt routine procedures for handling blood or body fluids, regardless of whether children with AIDS virus (HIV) infection are attending. Soiled surfaces should be promptly cleaned with disinfectants, such as bleach solution (See Glossary, page 19). Disposable towels or tissues should be used whenever possible and mops should be rinsed in the disinfectant. Individuals who are involved in cleaning should avoid exposure of open skin lesions or mucous membranes to blood or body fluids.

- All decisions regarding the type of educational and care setting for children should be based on the behavior, development, and physical condition of the child and the expected type of interaction with others in that setting.

- A child with AIDS virus (HIV) infection should not be excluded from school unless advised to do so by the attending physician and the medical officer of health. The psychological and social benefits of allowing such children to remain in school as their physical conditions permit should outweigh any theoretical health risk. The child should be closely monitored by the parents and the family physician. Any decision to remove the child from school should be discussed with the physician and school officials.

- If school officials are informed about a child with AIDS virus (HIV) infection, a meeting of the superintendent of schools or school administrator designated by the superintendent, the child's physician, the medical officer of health and the child's parents should be mandatory to ensure that everyone involved understands the situation and the implications of any action that may be taken.

- The confidential nature of the child's infection should be maintained at all times. Persons involved in the care and education of AIDS virus (HIV) infected children should respect the child's right to privacy. Records should be kept confidential. The number of persons who are aware of the child's condition should be limited to those who need to know in order to assure proper care of the child and to identify situations of potential transmission (e.g., bleeding injury).

- An uninfected child who has a family member with AIDS virus (HIV) infection should not be excluded from school.

Staff and Students Exposed to Blood or Other Body Fluids

- Disinfection of soiled materials: Objects or surfaces that are visibly soiled with blood or other body fluids of children, (regardless of whether they have AIDS virus (HIV) infection), should be wiped clean with soap and water and then disinfected with a freshly prepared bleach solution (See Glossary, page 19). The person doing the cleaning should wear disposable gloves and use disposable materials such as paper towels. If a mop is used it should be rinsed in disinfectant before further use. Clothing and linens that are visibly soiled with blood or other body fluids should be rinsed in cold water and then machine-washed in hot water with normal laundry detergent. Disposable gloves should be worn by the person rinsing and washing the items. All disposable articles that are soiled should be placed in a plastic bag, which should be closed with a twist tie and then placed in a regular garbage container.

- First aid: Preliminary first aid should be administered, then as soon as possible, all blood and body fluids should be washed off with hot soapy water. Careful handwashing should be emphasized as an effective and reliable precaution. Disposable gloves should be worn if possible to avoid exposure of open sores or broken mucous membranes. If an open sore does come in contact with blood or other body fluids it should be promptly washed.

GUIDELINES FOR DAY-CARE

STATEMENT OF THE PROBLEM

There are currently no data that specifically address the risk of transmission of AIDS virus (HIV) in the day-care setting. Therefore, the recommendations presented here are based on the hypothetical, and remote possibility of AIDS virus (HIV) transmission in this setting.

"Day-care" is defined as care provided in a place other than the child's home in settings that include: family day-care, group day-care, day-care centres, day nurseries, nursery schools, and other preschool programs in which attendance is not mandated by law.

Several factors increase the transmission of communicable diseases in child day-care settings. First, these children are in close physical contact with each other for extended periods of time. Second, young children who commonly put their hands and other objects in their mouths have an increased likelihood of acquiring numerous infectious diseases. Third, toilet and hand-washing facilities may be less than hygienic, and the children's use of available facilities is often less than ideal. In addition, children who attend day-care centres are at higher risk for acquiring some infections compared with children in family day-care settings where fewer children are present.

BACKGROUND

These recommendations apply to all children known to be infected with the AIDS virus (HIV) with or without symptoms. None of the reported cases of AIDS virus (HIV) infection in North America is known to have been transmitted in school, day-care, or foster care settings. Transmission has not been demonstrated among child contacts of infected adults, even when intimate household activities, such as sharing toothbrushes and taking baths together, were involved. Consequently, the possibility of transmission is most likely to be extremely low or nonexistent in situations of casual contact and normal school behavior.

RECOMMENDATIONS

Information regarding the epidemiology, clinical manifestations, and management of AIDS virus (HIV)-infected children is evolving and these guidelines will be updated as new information becomes available. The following guidelines are recommendations for day-care and foster care personnel, parents and health care providers.

1. As the risk of AIDS virus (HIV) transmission in the day-care setting is only theoretical at present, widespread screening of these children for the presence of HIV antibody is not warranted or recommended.

2. The decision as to whether a child known to have AIDS virus (HIV) infection may attend day-care or may be placed in foster care should be made on an individual basis. This decision is best made by a panel which includes the child's physician and the medical officer of health, who have the qualifications to evaluate whether an infected child poses a potential risk to others and whether the child will receive optimum care in the child care setting.

   The following factors may be considered by the panel as reasons to exclude an infected child from day-care: lack of control of body secretions (such as urine), or presence of hand and object-mouthing behaviors and biting. Most normal children younger than 3 years of age and some older children exhibit these behaviors. Children who do not exhibit these behaviors and who do not have open lesions are considered to be no more likely to transmit AIDS virus (HIV) than are their school-aged counterparts. Because the behavior of preschool-aged chldren often changes, frequent observation of the affected child's behavior should be made.

3. The decision to exclude a child already enrolled in day-care or foster care who is found to be infected with AIDS virus (HIV) should be based on whether the child is in control of body secretions (such as urine), exhibits hand- or object-mouthing behaviors, bites, or has open skin lesions. Decisions regarding notification and management of staff,

parent(s), and child contacts in the day-care setting should be made on an individual basis by a panel of qualified individuals, as previously described.

4. AIDS viurs (HIV) testing should only be initiated by the physician for children who have symptoms or risk conditions suggestive of AIDS virus (HIV) infection.

5. Some children may be unknowingly infected with AIDS virus (HIV) or other infections, such as hepatitis B virus. These agents may be present in blood or body fluids. Therefore, all day-care and foster care providers should adopt routine procedures for handling blood and body fluids regardless of whether children with AIDS virus (HIV) infection are known to be in attendance. All child care staff should be informed about these procedures. For example, soiled surfaces should be promptly cleaned with disinfectants, such as household bleach (See Glossary, page 19). Disposable towels or tissues should be used whenever possible and properly discarded. Mops should be rinsed in the disinfectant. Cleaning staff should avoid the risk of having mucous membranes or any skin lesions exposed to blood or body fluids, for example, by using disposable gloves.

6. Children who are infected with AIDS virus (HIV) may have damaged immune systems. These children are at increased risk of severe complications from numerous infections. Children may have a greater risk of encountering these infections in child day-care than at home. Therefore, the risk to the AIDS virus (HIV) infected child of attending day care in an unrestricted setting is best assessed by a physician who is aware of the condition of the child's immune system.

7. There are limited data on the use of live virus vaccines (oral polio, measles, mumps, rubella, and BCG vaccines) in children who are known to be infected with AIDS virus (HIV). To date there have been no reported complications. Nevertheless, children with the symptoms of AIDS virus (HIV) infection should not be given live virus vaccines. These children should receive diphtheria-tetanus-pertussis, inactivated influenza,

pneumococcal, and inactivated polio vaccines in accordance with provincial recommendations.

Children without symptoms of AIDS virus (HIV) infection should be immunized in accordance with the provincial recommendations for routine childhood immunization. However, children with AIDS virus (HIV) infection and their household contacts should not be given oral polio vaccine; are the vaccine virus spreads rapidly to contacts. Inactivated polio vaccine should be used.

8. Persons involved in the care and education of a preschool-aged, AIDS virus (HIV)-infected child should be informed of the child's infection status and should respect the child's and the family's right to confidentiality.

   Records dicussing AIDS virus (HIV) status should be kept only if there is strict confidentiality. The number of persons aware of the child's condition should be restricted to include only those needed to ensure proper care of the child and to detect situations of potential transmission.

9. Adults infected with AIDS virus (HIV) and without symptoms may care for children in day-care settings provided that they do not have weeping skin lesions or other conditions that would allow contact with their body fluids. Adults with damaged immune systems due to AIDS are more likely to acquire infections and should consult with their own physicians regarding the safety of continuing work. On the basis of available data, there is no reason to believe that infected adults will transmit AIDS virus (HIV) in the course of their normal day-care duties.

MANAGEMENT OF POSSIBLE WORKPLACE EXPOSURE TO AIDS VIRUS (HIV)

If a worker or a patient/client has a needle puncture or cut to the skin or mucous membrane (e.g., splash to the eye or mouth) exposure to blood or other body fluids, the source person should be assessed clinically and epidemiologically by a physician to determine the possibility of AIDS virus (HIV) infection.

If such infection may exist, the source person should be informed of the incident and requested to consent to blood testing for evidence of AIDS virus infection. If the source patient is found to be infected or declines testing, the person who was exposed to possible infection should be evaluated clinically and serologically for evidence of AIDS virus (HIV) infection as soon as possible. If the exposed person's first blood test is negative, they should be retested after a period of 6 weeks and again at 3, 6 and 12 month intervals to determine if transmission has occurred. If the source person continues to show a negative test and has no evidence of AIDS virus (HIV) infection, no further follow-up is necessary.

GLOSSARY

AIDS	Acquired Immunodeficiency Syndrome.
ARC	AIDS-related Complex.
HIV	Human Immunodeficiency Virus: the agent which causes AIDS; formerly known as Human T-Lymphotropic Virus III/ Lymphadenopathy Associated Virus (HTLV-III /LAV).
HCW	Health Care Worker
HBV	Hepatitis B Virus
PSW	Personal Service Worker
Antiseptic	a chemical having the ability to destroy potentially infective micro-organisms and which can be used safely on living tissues.
Bleach Solution	the most commonly recommended disinfectant in these guidelines is bleach solution (i.e. a 0.5% sodium hypochlorite solution which can be prepared by mixing household chlorine bleach - (5.25%) one part bleach to nine parts water). It must be prepared fresh daily. This solution is corrosive and must be used with caution on metal surfaces.
Cleaning	Scrubbing and washing, with hot water, soap or detergent to remove infectious agents and/or organic matter from surfaces.
Disinfection	the use of germicidal chemical agents to destroy infectious agents.
Sterilization	the use of a physical process or chemical agents to eliminate all viable microorganisms. Steam and gas autoclaving and dry heat ovens are the most common methods.

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